

S11 8	46	(transfer\$ same (records with database) same (web))	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/06/20 12:01
S11 9	0	(migrate\$ same (records with database) same (web))	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/06/20 12:01
S12 0	87	(transmit\$ same (records with database) same (web))	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/06/20 12:01
S12 1	29	(transmit\$ with (records with database) same (web))	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/06/20 12:02
S12 2	33	(transfer\$ same (record with database) same (web))	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/06/20 12:05
S12 3	492	(transfer\$ same (information with database) same (web))	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/06/20 12:05
S12 4	186	(transfer\$ with (information with database) same (web))	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/06/20 12:05
S12 5	58	(transfer\$ with (information with database) same (web)) and (account or profile)	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/06/20 14:05
S12 6	2	"6144959".pn.	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/06/20 14:23
S12 7	2	"6393468".pn.	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/06/20 14:18

S12 8	2	"6393468".pn. and transfer	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/06/20 14:18
S12 9	0	"6144959".pn. and receive	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/06/20 14:22
S13 0	0	"6144959".pn. and receiving	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/06/20 14:22
S13 1	97	(receiving with (user near2 records))	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/06/20 14:23
S13 2	4	(receiving with (user near2 records)) same (web)	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/06/20 14:39
S13 3	6	(populat\$ with records with web)	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/06/20 14:44
S13 4	28	(receiving with (customer near2 records))	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/06/20 14:46
S13 5	0	S134 and (populating with (records))	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/06/20 14:44
S13 6	1	S134 and (records with web)	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/06/20 14:45
S13 7	8	S134 and web	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/06/20 14:45

S13 8	97	(receiving with (user near2 records))	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/06/20 14:47
S13 9	4	(receiving with (user near2 records)) same web	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/06/20 14:48
S14 0	7	(populating same (web same (user near2 records)))	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/06/20 14:49
S14 1	2	(populate\$ same (web same (individual near2 records)))	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/06/20 15:41
S14 2	44	(file near2 attribute) same (read-only)	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/06/20 15:47
S14 3	3	S142 and WORM	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/06/20 15:52
S14 4	65	(file near2 system) and ((file near2 attribute) same ((read near2 only) or (read-only)))	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/06/20 15:55
S14 5	24	(file near2 system) and ((file near2 attribute) same ((read near2 only) or (read-only))) and protocol	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/06/20 15:59
S14 6	21	(file near2 system) and ((file near2 attribute) with ((read near2 only) or (read-only))) and protocol	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/06/20 16:28
S14 7	0	(file near2 system) and ((file near2 attribute) with ((read near2 only) or (read-only))) and protocol and (commit\$ with files)	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/06/20 16:28

S14 8	10	(file near2 system) and ((file near2 attribute) with ((read near2 only) or (read-only))) and protocol and (transfer\$ with files)	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/06/20 16:33
S14 9	0	((file near2 attribute) same ((read near2 only) or (read-only))) same (commit\$ with files)	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/06/20 16:34
S15 0	0	((file near2 attribute) same ((read near2 only) or (read-only))) same (migrate\$ with files)	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/06/20 16:34
S15 1	4	((file near2 attribute) same ((read near2 only) or (read-only))) and (migrat\$ with files)	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/06/20 16:37
S15 2	1	((file near2 attribute) with ((read near2 only) or (read-only))) and (migrat\$ with files)	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/06/20 16:38
S15 3	2	(commit\$ with files) same (read near2 only)	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/06/20 16:38
S15 4	1	(committed with files) same (read near2 only)	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/06/20 16:39
S15 5	0	(committed with files) same (read-only)	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/06/20 16:41
S15 6	13	(read-only) near2 file near2 attribute	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/06/20 16:52
S15 7	0	S156 with automatically	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/06/20 16:43

S15 8	1	(read-only) with (file near2 attribute) with automatically	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/06/20 16:53
S15 9	1	(read near2 only) with (file near2 attribute) with automatically	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/06/20 16:53
S16 0	1	(read near2 only) with (file near2 attribute) same automatically	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/06/20 18:40
S16 1	18	(reconstruct\$ with (WORM))	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/06/20 18:42
S16 2	0	S161 and snapshot	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/06/20 18:40
S16 3	8891	707/2 or 707/4 or 707/3	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/06/20 18:45
S16 4	91	S163 and (optimize\$1 with statements)	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/06/20 18:46
S16 5	76	S163 and (optimize\$1 with statements) and SQL	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/06/20 18:46
S16 6	3	S163 and (optimize\$1 with statements) and SQL and (times with statements)	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/06/20 18:48
S16 7	1	S163 and (optimize\$1 with statements) and SQL and (times with statements) and (convert\$ same statement)	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/06/20 18:48

S42 7	0	(receiving with records) same (create with profile)	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/07/06 17:41
S42 8	0	(receiving with records) same (create with account)	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/07/06 17:42
S42 9	130	(receiving with records) same (account)	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/07/06 17:43
S43 0	0	(upload\$3 with records) and (create with accounts)	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/07/06 17:43
S43 1	54	(upload\$3 with records) and (accounts)	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/07/06 17:44
S43 2	4	(upload\$3 with records) same(accounts)	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/07/06 17:44
S43 3	4	(upload\$3 with records) same (accounts)	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/07/06 17:50
S43 4	41	(create\$ with accounts) same records	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/07/06 17:52
S43 5	148	(create\$ with profile) same records	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/07/06 17:57
S43 6	2	"5765142".pn.	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/07/07 09:48

S43 7	18	(transfer\$ with ((user near2 information)) with database) same web	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/07/07 13:14
S43 8	11	(individual near2 record\$1) same (create\$1 with (account or profile))	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/07/07 14:58
S43 9	14380	(create\$1 with (profile or account))	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/07/07 14:58
S44 0	271	(automatically with (create\$1 with (profile or account)))	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/07/07 15:11
S44 1	32	(automatically with (create\$1 with (profile or account))) same web	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/07/07 15:09
S44 2	0	(automatically with (create\$1 with record\$1)) same (collection with (user near2 information))	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/07/07 15:10
S44 3	0	(automatically with (create\$1 with record\$1)) same (receiving with (user near2 information))	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/07/07 15:10
S44 4	3	(automatically with (create\$1 with record\$1)) same (receiving with information)	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/07/07 15:10
S44 5	1	(automatically with (create\$1 with (profile or account))) same (collect with user)	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/07/07 15:11
S44 6	1	(automatically with (create\$1 with (profile or account))) same (aggregate with user)	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/07/07 15:28

S44 7	271	(automatically with (create\$1 with (profile or account)))	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/07/07 16:48
S44 8	2	"certifiedmail.com" and account	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/07/07 16:49
S44 9	5	(create\$1 with (account or profile)) same unregistered	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/07/07 16:51
S45 0	0	(create\$1 with (account or profile)) same un-registered	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/07/07 16:51
S45 1	71	((account or profile)) same unregistered	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/07/07 16:51
S45 2	27	((account or profile)) with unregistered	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/07/07 16:53
S45 3	168	unregistered near2 user	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/07/07 16:54
S45 4	0	S453 same (create near2 account)	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/07/07 16:53
S45 5	1	S453 same (create\$ with account)	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/07/07 16:53
S45 6	2	unregistered near2 individual	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/07/07 16:54

S45 7	0	(unregistered near2 individual\$1) same (create\$ with account)	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/07/07 16:55
S45 8	0	(unregistered near2 individual\$1) same (create\$ with profile)	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/07/07 16:55
S45 9	0	(unregistered near2 client) same (create\$ with account)	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/07/07 16:55
S46 0	0	(unregistered near2 buyer) same (create\$ with account)	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/07/07 16:55
S46 1	0	(unregistered with buyer) same (create\$ with account)	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/07/07 16:55
S46 2	1	(unregistered with buyer) and (create\$ with account)	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/07/07 16:55
S46 3	404	(unregistered with (user or viewer))	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/07/07 16:56
S46 4	13	(unregistered with (user or viewer)) same account	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/07/07 17:04
S46 5	2586	709/206	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/07/07 17:04
S46 6	0	S465 and (uregistered with user)	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/07/07 17:05

S46 7	16	S465 and (unregistered with user)	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/07/07 17:05
S46 8	129	(automatically with (generated with account))	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/07/07 17:44
S46 9	92	(optimizations same statement)	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/07/07 17:47
S47 0	5	S469 and (convert\$ with statement)	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/07/07 17:46
S47 1	31	(optimizations same query) and (convert\$ with query)	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/07/07 18:15
S47 2	15	(optimization with code) same SQL	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/07/07 18:08
S47 3	2	(optimizations with code) same SQL	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/07/07 18:08
S47 4	0	(optimization with code) same SQL same convert	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/07/07 18:09
S47 5	31	(optimization with code) same convert	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/07/07 18:09
S47 6	264	(display\$1 with SQL)	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/07/07 18:16

S47 7	65	(display\$1 with (SQL near2 query))	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/07/07 18:16
S47 8	24	(display\$1 with (SQL near2 query)) same interface	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/07/08 11:10
S47 9	4	"6144959".pn. or "6269369".pn.	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/07/08 11:27
S48 0	2	"6684248".pn.	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/07/08 11:27
S48 1	0	"6684248".pn. and update	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/07/08 11:27
S48 2	1	"6684248".pn. and maintain	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/07/08 13:47

Set Items Description

S1 7181 (DISTRIBUTED OR SHARED).(2W) ( FILE? .OR OBJECT? .OR COMPUTING  
OR DATABASE? OR DATA()BASE? OR PROCESSING) OR GROUPWARE OR CO-  
MMON()SET()APPLICATION? OR PROGRAMMATICALLY()CONNECTED OR NET-  
WORK()LOAD()BALANCING

S2 7010 (OBJECT? OR RELATIONAL?) ()(DATABASE? OR DATA()BASE?) OR OB-  
JECT()ORIENTED OR OO OR OOPL OR OODB OR RDBM OR RDB OR OOPLS -  
OR OODBS OR RDBMS

S3 5564158 CLASS? OR SUBJECT? OR KEYWORD? OR WORD? OR TERM? OR DESCRI-  
PTOR? OR SUBJECT()HEADING OR GENRE? OR TOPIC? OR TYPE? OR CON-  
TENT? OR GROUP? OR RELATION? OR CONNECTION?

S4 4095046 CONVERT? OR TRANSFORM? OR CHANGE? OR MODIF? OR CONVERT? OR  
EXCHANG? OR TRANSLAT? OR SWITCH? OR SUBSTITUTE? OR TRADE? OR -  
SWAP?

S5 9287 (EXTENSIBLE() (MARKUP OR MARK()UP) ()LANGUAGE? OR XML OR HYP-  
ERTEXT OR HYPERMEDIA OR (MARKUP OR MARK()UP) ()LANGUAGE? OR HT-  
ML OR VCML)

S6 280968 DIRECTOR? OR INDEX? OR INDICES OR LIST? OR REGISTRY OR REG-  
ISTRIES OR CHECKLIST?

S7 1037037 GLOBAL OR UNIVERSAL OR ALL OR INCLUSIVE OR ENTIRE?

S8 828 DIRECTORY() (SERVER? OR PROGRAM? OR PROCESSOR? OR HOST? OR -  
PROVIDER? (N) RESOURCE?. OR NODE? OR APPLICATION?) OR DSA

S9 55816 ONTOLOGY OR ONTOLOGIES OR CONCEPTUAL?()MODEL? OR CONTROLLE-  
D() VOCABULARY OR MODEL(5N) KNOWLEDGE OR CONCEPT? OR ATTRIBUTE?

S10 1987895 SERVER? OR STATION? OR SERVER? OR CPU OR CPUS OR PROCESSO-  
R? OR HOST? OR PROVIDER()RESOURCE? OR REPOSITOR? OR NODE? OR -  
TERMINAL?

S11 87 S4 AND S5 AND S2

S12 84 S11 AND IC=G06F?

S13 70 S12 AND IC=(G06F-009? OR G06F-017? OR G06F-015?)

S14 0 S11 AND IC=G06G-005?

S15 11 S13 AND S9

S16 0 S13 AND (S7 (3N) S8)

S17 54 S13 AND S3

S18 43 S17 NOT S15

File 347:JAPIO Nov 1976-2004/Jun (Updated 041004)

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File 350:Derwent WPIX 1963-2004/UD,UM &UP=200467

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15/5/1 (Item 1 from file: 347)  
DIALOG(R)File 347:JAPIO  
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06202353 \*\*Image available\*\*  
EXTENSION SYSTEM FOR COMPOSITE OBJECT AND COMPUTER READABLE RECORDING  
MEDIUM

PUB. NO.: 11-143910 [JP 11143910 A]  
PUBLISHED: May 28, 1999 (19990528)  
INVENTOR(s): YASUMURA YOSHITAKA  
APPLICANT(s): NEC CORP  
APPL. NO.: 09-325484 [JP 97325484]  
FILED: November 11, 1997 (19971111)  
INTL CLASS: G06F-017/30 ; G06F-013/00

#### ABSTRACT

PROBLEM TO BE SOLVED: To provide technology that is suitable to deal with an object - oriented data base which stores the data of a complicated structure in a composite object form on a WWW(world wide web).

SOLUTION: An application code 112 of a server side accesses a data base 105 and returns the object identifier of a base point object of composite object form data coincident with a data base access request. An HTML (hypertext mark-up language) template file 113 defines the type of an attribute value of the object to be actually returned to a user by describing an extension tag to instruct the acquisition of the type of the attribute value to a place where this type is buried. A document extension part 109 accesses the base point object that is pointed by the returned object identifier and another object that is traced from the base point object by a pointer to acquire the attribute value of a necessary object according to the extension tag contained in the file 113. Then, the part 109 converts the acquired attribute value into a text form and generates an HTML document that should be returned to the user.

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15/5/3 (Item 2 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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016272557 \*\*Image available\*\*  
WPI Acc No: 2004-430451/200440  
Related WPI Acc No: 2003-060947; 2003-212552; 2003-606685; 2003-688237;  
2003-756154; 2003-802072; 2004-430524  
XRPX Acc No: N04-340341

Method for mapping data schema into common ontology model, involves identifying primary data in data schema and secondary data in primary data, and mapping primary and secondary data to class and property of ontology model

Patent Assignee: BERGER B (BERG-I); HELLMAN Z (HELL-I); MARCHANT H (MARC-I); MEIR R (MEIR-I); MELAMED B (MELA-I); SCHREIBER Z (SCHR-I)

Inventor: BERGER B; HELLMAN Z; MARCHANT H; MEIR R; MELAMED B; SCHREIBER Z

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20040093344	A1	20040513	US 2001866101	A	20010525	200440 B
			US 2001904457	A	20010706	
			US 200253045	A	20020115	
			US 2002104785	A	20020322	
			US 2002159516	A	20020531	
			US 2002302370	A	20021122	
			US 2003340068	A	20030109	
			US 2003637339	A	20030808	

Priority Applications (No Type Date): US 2003637339 A 20030808; US

2001866101 A 20010525; US 2001904457 A 20010706; US 200253045 A 20020115;  
US 2002104785 A 20020322; US 2002159516 A 20020531; US 2002302370 A  
20021122; US 2003340068 A 20030109

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
US 20040093344	A1	111	G06F-017/00	CIP of application US 2001866101 CIP of application US 2001904457 CIP of application US 200253045 CIP of application US 2002104785 CIP of application US 2002159516 CIP of application US 2002302370 CIP of application US 2003340068

Abstract (Basic): US 20040093344 A1

NOVELTY - The primary data associated within the data schema, is identified. The secondary data associated in the primary data, is identified. The primary and secondary data are respectively mapped to class and property of **ontology** model.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (1) system for mapping data schema;
- (2) method for mapping schema of metadata to metadata model;
- (3) system for mapping metadata into metadata model;
- (4) method of mapping business data schema into generic data schema;
- (5) system for mapping business data schema into generic data schema; and
- (6) recorded medium storing program for mapping data schema into common **ontology** model

USE - For mapping data schema such as **relational database** schema (RBMS) and **extensible markup language** ( XML ) into common **ontology** model.

ADVANTAGE - Enables **transformation** of a schema into another schema efficiently.

DESCRIPTION OF DRAWING(S) - The figure shows the flowchart explaining **transformation** of data schema.

pp; 111 DwgNo 1/28

Title Terms: METHOD; MAP; DATA; COMMON; MODEL; IDENTIFY; PRIMARY; DATA; DATA; SECONDARY; DATA; PRIMARY; DATA; MAP; PRIMARY; SECONDARY; DATA; CLASS; PROPERTIES; MODEL

Derwent Class: T01

International Patent Class (Main): G06F-017/00

File Segment: EPI

15/5/4 (Item 3 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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015996145 \*\*Image available\*\*

WPI Acc No: 2004-153995/200415

XRPX Acc No: N04-123030

Hierarchical textual file preparing method in relational database , involves defining tabular data structure containing data attribute element fields and storing determined data attributes of received hierarchical textual file

Patent Assignee: ACCENTURE LLP (ACCE-N)

Inventor: CORNELIUS S S; HUFFMAN A Z; KLUG M C; KRAHN R R; SU E C; SWEENEY M S

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 6684222	B1	20040127	US 2000710132	A	20001109	200415 B

Priority Applications (No Type Date): US 2000710132 A 20001109

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
-----------	------	--------	----------	--------------

Abstract (Basic): US 6684222 B1

NOVELTY - A generally tabular data structure containing data **attribute** element fields and hierarchical **attribute** field, and data object rows, is defined in a database. When a hierarchical textual file is received, the data **attributes** associated with corresponding structured data elements of the file, are determined to store in the data structure.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (1) data manipulating method; and
- (2) hierarchical textual file preparing system.

USE - For preparing hierarchical textual file for storage in relational database .

ADVANTAGE - Allows XML data structure which is readily transformed into generic relational data storage format, to be stored in a generic storage procedure for the relational databases , and enables user to use readily available commands for querying and manipulating transactional data between trading partners.

DESCRIPTION OF DRAWING(S) - The figure shows an explanatory view of a generally tabular data structure.

pp; 16 DwgNo 6/6

Title Terms: HIERARCHY; TEXT; FILE; PREPARATION; METHOD; RELATED; DATABASE; DEFINE; TABULAR; DATA; STRUCTURE; CONTAIN; DATA; ATTRIBUTE ; ELEMENT; FIELD; STORAGE; DETERMINE; DATA; ATTRIBUTE ; RECEIVE; HIERARCHY; TEXT; FILE

Derwent Class: T01

International Patent Class (Main): G06F-017/30

File Segment: EPI

15/5/6 (Item 5 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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014979355 \*\*Image available\*\*

WPI Acc No: 2003-039869/200303

Related WPI Acc No: 2002-731552; 2003-139205; 2003-362144

XRPX Acc No: N03-031224

XML document location determination method in distributed computing system, involves creating and using side tables storing elements or attributes of XML document to locate XML data stopped in main table

Patent Assignee: INT BUSINESS MACHINES CORP (IBMC )

Inventor: CHAU H K; CHENG I K; CHENG J M; CHIU S M; CHOW J; PAUSER M L; XU J

Number of Countries: 001 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20020133484	A1	20020919	US 99168659	P	19991202	200303 B
			US 2000725363	A	20001129	
			US 200262069	A	20020131	
US 6643633	B2	20031104	US 99168659	P	19991202	200374
			US 2000725363	A	20001129	
			US 200262069	A	20020131	

Priority Applications (No Type Date): US 99168659 P 19991202; US 2000725363 A 20001129; US 200262069 A 20020131

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
US 20020133484	A1	84	G06F-007/00	Provisional application US 99168659

US 6643633	B2	G06F-017/30	Cont of application US 2000725363 Provisional application US 99168659 Cont of application US 2000725363
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Abstract (Basic): US 20020133484 A1

**NOVELTY** - A main table with a column for storing document is created. At least one side table is created for storing elements or **attributes** of the document. The side tables are used to locate the **XML** data in the main table.

**DETAILED DESCRIPTION** - INDEPENDENT CLAIMS are included for the following:

- (1) Apparatus for locating **XML** document stored in data store;
- (2) Articles of manufacture comprising storage medium having the **XML** data locating program;
- (3) Method of transforming **XML** data stored in data storage device;
- (4) Apparatus for transforming **XML** data; and
- (5) Article of manufacture comprising storage medium having **XML** data transforming program.

**USE** - For determining location of **XML** document stored in relational database such as DB2 database of distributed computing system for business to business (B2B), business to consumer (B2C) e-business and web information retrieval applications and content management.

**ADVANTAGE** - The time required for decomposing, storing and locating documents in a relational database of computer system is reduced.

**DESCRIPTION OF DRAWING(S)** - The figure shows the computer software environment implementing distributed computer system.

pp; 84 DwgNo 2/11

Title Terms: DOCUMENT; LOCATE; DETERMINE; METHOD; DISTRIBUTE; COMPUTATION; SYSTEM; SIDE; TABLE; STORAGE; ELEMENT; ATTRIBUTE ; DOCUMENT; LOCATE; DATA; STOP; MAIN; TABLE

Derwent Class: T01

International Patent Class (Main): G06F-007/00 ; G06F-017/30

File Segment: EPI

15/5/7 (Item 6 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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014910846 \*\*Image available\*\*

WPI Acc No: 2002-731552/200279

Related WPI Acc No: 2003-039869; 2003-139205; 2003-362144

XRPX Acc No: N02-576711

Extensible markup language data location method for computer system, involves creating side tables that store attributes of document to locate data in main table

Patent Assignee: CHAU H K (CHAU-I); CHENG I K (CHEN-I); CHENG J M (CHEN-I); CHIU S M (CHIU-I); CHOW J (CHOW-I); PAUSER M L (PAUS-I); XU J (XUJJ-I); INT BUSINESS MACHINES CORP (IBMC )

Inventor: CHAU H K; CHENG I K; CHENG J M; CHIU S M; CHOW J; PAUSER M L; XU J

Number of Countries: 001 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20020123993	A1	20020905	US 99168659	P	19991202	200279 B
			US 2000725363	A	20001129	
US 6721727	B2	20040413	US 99168659	P	19991202	200425
			US 2000725363	A	20001129	

Priority Applications (No Type Date): US 99168659 P 19991202; US 2000725363 A 20001129

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes  
US 20020123993 A1 91 G06F-007/00 Provisional application US 99168659

US 6721727 B2 G06F-017/30 Provisional application US 99168659

Abstract (Basic): US 20020123993 A1

NOVELTY - A main table (300) having a column for storing a extensible markup language ( XML ) document with several elements

• or **attributes**, is created. The side tables (302,304,306,308) storing the **attributes** are created to locate the data in the main table.  
DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:  
(1) Data location apparatus;  
(2) Computer storage medium storing program for locating data;  
(3) Data transformation method;  
(4) Data transformation apparatus; and  
(5) Computer storage medium storing program for transforming data.

USE - For locating extensible markup language data in data base for computer system including personal computer, workstation, mini frame, mainframe using network such as LAN, WAN, SNA, Internet, etc.

ADVANTAGE - Efficiently decomposes the XML document and stores the decomposed data into a relational database.

DESCRIPTION OF DRAWING(S) - The figure shows an illustrative view of the main table and its four side tables.

Main table (300)

Side tables (302,304,306,308)

pp; 91 DwgNo 3/11

Title Terms: EXTEND; LANGUAGE; DATA; LOCATE; METHOD; COMPUTER; SYSTEM; SIDE ; TABLE; STORAGE; ATTRIBUTE ; DOCUMENT; LOCATE; DATA; MAIN; TABLE

Derwent Class: T01

International Patent Class (Main): G06F-007/00 ; G06F-017/30

File Segment: EPI

15/5/8 (Item 7 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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014789583 \*\*Image available\*\*

WPI Acc No: 2002-610289/200266

XRPX Acc No: N02-483292

Data storing method in relational database system, involves forming element and attribute tables including parent element IDs of elements and attribute name IDs along with element IDs, respectively

Patent Assignee: SUN MICROSYSTEMS INC (SUNM )

Inventor: CORDES D; JAHNKE J

Number of Countries: 027 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 1225516	A1	20020724	EP 2001101379	A	20010122	200266, B
US 20020099715	A1	20020725	US 200254544	A	20020118	200266

Priority Applications (No Type Date): EP 2001101379 A 20010122

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
EP 1225516	A1	E	17	G06F-017/30	

Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR  
US 20020099715 A1 G06F-007/00

Abstract (Basic): EP 1225516 A1

NOVELTY - The element and attribute tables (210,220) including data regarding several elements and corresponding attributes are formed. Each element data set includes a parent element ID for each element. Each attribute data set contains the attribute name ID and the element ID of each element to which the attribute is assigned.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

- (1) Data structure;
- (2) Data set;
- (3) Computer program for storing data in relational database system;
- (4) Computer program product for storing data in relational database system; and

(5) Computer system including a **relational database**.

USE - For storing contents of **XML** -document used for world wide web applications such as electronic commerce applications in **relational database** system.

ADVANTAGE - The contents of an **XML** document are fastly and efficiently transferred to the **relational database**, where search and query operations are performed much better. Allows simple creation of database and simple data transfer from database.

DESCRIPTION OF DRAWING(S) - The figure shows a schematic view illustrating the operation of **converting** **XML** -document into a **relational database**.

Element table (210)

Attribute table (220)

pp; 17 DwgNo 1/5

Title Terms: DATA; STORAGE; METHOD; RELATED; DATABASE; SYSTEM; FORMING; ELEMENT; **ATTRIBUTE**; TABLE; PARENT; ELEMENT; ELEMENT; **ATTRIBUTE**; NAME; ELEMENT; RESPECTIVE

Derwent Class: T01

International Patent Class (Main): G06F-007/00 ; G06F-017/30

File Segment: EPI

15/5/9 (Item 8 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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014659160

WPI Acc No: 2002-479864/200251

XRPX Acc No: N02-378937

Method of preparing for a relational database a hierarchical textual file containing structured data elements by storing attributes of the elements in a tabular file

Patent Assignee: ACCENTURE LLP (ACCE-N)

Inventor: HUFFMAN A Z; KLUG M C; KRAHN R R; SU E C; SWEENEY M S

Number of Countries: 094 Number of Patents: 003

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200239322	A1	20020516	WO 2000US31085	A	20001109	200251 B
AU 200116013	A	20020521	WO 2000US31085	A	20001109	200260
			AU 200116013	A	20001109	
EP 1342169	A1	20030910	EP 2000978559	A	20001109	200367
			WO 2000US31085	A	20001109	

Priority Applications (No Type Date): WO 2000US31085 A 20001109

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 200239322 A1 E 35 G06F-017/30

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW  
Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW

AU 200116013 A G06F-017/30 Based on patent WO 200239322

EP 1342169 A1 E G06F-017/30 Based on patent WO 200239322

Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR

Abstract (Basic): WO 200239322 A1

NOVELTY - A generally tabular data structure contains data **attribute** fields associated with corresponding data element fields. A hierarchical textual file containing structured data elements is stored in the tabular file with each element stored together with its **attributes**. The elements are processed and manipulated within the table using standard commands applicable to the **relational database**. The hierarchical file may include an **Extensible Mark-up Language** file.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for  
(a) a method for manipulating data associated with a hierarchical textual file

(b) and a system for preparing a hierarchical textual file

USE - Translating data between a hierarchical data structure and a generally tabular data structure for a relational database.

ADVANTAGE - provides a universally applicable procedure for preparing hierarchical textual files.

pp; 35 DwgNo 0/7

Title Terms: METHOD; PREPARATION; RELATED; DATABASE; HIERARCHY; TEXT; FILE; CONTAIN; STRUCTURE; DATA; ELEMENT; STORAGE; ATTRIBUTE ; ELEMENT; TABULAR ; FILE

Derwent Class: T01

International Patent Class (Main): G06F-017/30

File Segment: EPI

15/5/10 (Item 9 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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014584576

WPI Acc No: 2002-405280/200243

XRPX Acc No: N02-318165

Method of mapping a DICOM SR document into a UML Object - Oriented representation by mapping DICOM Information Entities, IOD Modules, Macros and Attributes into corresponding UML classes and attributes

Patent Assignee: KONINK PHILIPS ELECTRONICS NV (PHIG )

Inventor: ALSAFADI Y; HU J; TIRADO-RAMOS A

Number of Countries: 022 Number of Patents: 004

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200231688	A2	20020418	WO 2001EP11152	A	20010926	200243 B
KR 2002056958	A	20020710	KR 2002707414	A	20020610	200304
EP 1350185	A2	20031008	EP 2001978388	A	20010926	200370
			WO 2001EP11152	A	20010926	
JP 2004511853	W	20040415	WO 2001EP11152	A	20010926	200426
			JP 2002535003	A	20010926	

Priority Applications (No Type Date): US 2000686401 A 20001010

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 200231688 A2 E 22 G06F-017/30

Designated States (National): JP KR

Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR

KR 2002056958 A G06F-017/30

EP 1350185 A2 E G06F-017/30 Based on patent WO 200231688

Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

JP 2004511853 W 38 G06F-017/30 Based on patent WO 200231688

Abstract (Basic): WO 200231688 A2

NOVELTY - The names of the DICOM (Digital Imaging and Communications in Medicine) Information Entities, IOD Modules, Macros and Attributes are generally kept when mapped into UML elements though with certain exceptions. DICOM SR atomic attributes are mapped into UML class attributes by copying upper and lower case letter from the atomic attribute to lower case letters in the UML class attribute and by copying each blank space and hyphen character from the atomic attribute as an underscored character in the UML class attribute. Resulting UML documents can then be mapped into corresponding XML documents.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for

(a) an electronic document including a UML document mapped from a DICOM SR document

(b) a computer program including a mapped UML document

- (c) a method of mapping a DICOM SR atomic **attribute** into a UML class **attribute**
- (d) a method of creating an **XML** compatible representation corresponding to a DICOM SR document
- (e) an electronic document including a mapped **XML** representation of a DICOM SR document
- (f) a computer program including an **XML** mapped representation of a DICOM SR document
- (g) and a DICOM SR to **Object - Oriented** -representation **converter**

**USE** - Modeling and representing medical reports using DICOM SR relational data.

**ADVANTAGE** - Helps developers, analysts and system architects better to understand the ICOM SR specification and better able to develop DICOM SR-aware applications.

pp; 22 DwgNo 0/7

Title Terms: METHOD; MAP; SR; DOCUMENT; OBJECT; ORIENT; REPRESENT; MAP; INFORMATION; ENTITY; MODULE; **ATTRIBUTE**; CORRESPOND; CLASS; **ATTRIBUTE**

Derwent Class: T01

International Patent Class (Main): G06F-017/30

File Segment: EPI

15/5/11 (Item 10 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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014050571 \*\*Image available\*\*

WPI Acc No: 2001-534784/200159

XRPX Acc No: N01-396994

Document generating and maintaining method in business system model, involves creating relational database to hold contents for automatic generation of documents in formatted, printable and compilable form

Patent Assignee: COMPAQ COMPUTER CORP ('COPQ')

Inventor: KADLEC J

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 6212530	B1	20010403	US 9876373	A	19980512	200159 B

Priority Applications (No Type Date): US 9876373 A 19980512

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 6212530	B1	26		G06F-017/30	

Abstract (Basic): US 6212530 B1

NOVELTY - A conceptual model is provided by charting and analyzing dynamic exchange among entities in hierarchy of process message matrices, and entity relation diagram defining relation among entities is drawn. A relational database is created, based on conceptual model and diagram to hold contents for generation of documents in formatted printable form, enabling post-processing into online **hypertext** documentation.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for apparatus for generating and maintaining structured collection of documents.

USE - In business system model.

ADVANTAGE - Enables online **hypertext** documentation by automatic generation of documents in formatted, printable and compilable form. Enables documentation administrator to maintain and monitor the documents. Enables analysis and documentation of very complex business system in formally consistent manner.

DESCRIPTION OF DRAWING(S) - The figure shows the software architecture of business system model.

pp; 26 DwgNo 2/5

Title Terms: DOCUMENT; GENERATE; MAINTAIN; METHOD; BUSINESS; SYSTEM; MODEL; RELATED; DATABASE; HOLD; CONTENT; AUTOMATIC; GENERATE; DOCUMENT; PRINT;

'FORM

Derwent Class: T01

International Patent Class (Main): G06F-017/30

File Segment: EPI

18/5/2 (Item 2 from file: 347)  
DIALOG(R) File 347:JAPIO  
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07091280 \*\*Image available\*\*  
INFORMATION PROCESSOR, ITS METHOD, RECORDING MEDIUM RECORDING INFORMATION  
PROCESSING SOFTWARE, AND RELATIONAL DATABASE

PUB. NO.: 2001-318935 [JP 2001318935 A]  
PUBLISHED: November 16, 2001 (20011116)  
INVENTOR(s): KOMAKI TAKASHI  
KOMAKI MASASHI  
APPLICANT(s): KOMAKKUSU KK  
APPL. NO.: 2000-135432 [JP 2000135432]  
FILED: May 09, 2000 (20000509)  
INTL CLASS: G06F-017/30 ; G06F-012/00

#### ABSTRACT

PROBLEM TO BE SOLVED: To attain effective structure retrieval for **contents** of a document expressed by a data description language having hierarchical structure by using a **relational database** management system( **RDBMS** ).

SOLUTION: A conversion/storage part 1 is a means for **converting** the format of an **XML** document D and storing the **converted** result in a **relational database** ( **RDB** ). Concretely tags and a text between the tags are successively extracted as a pause from the provided **XML** document D, Respective lines including a document number different in each **XML** document D, a pause number expressing the order of each pause and the **contents** of the pause are recorded in a table of the **RDB** . A retrieval processing part 2 is a means for executing the processing such as retrieval/ **change** of the **RDB** table **converted** from the **XML** document D and restoration of the original **XML** document D.

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18/5/8 (Item 5 from file: 350)  
DIALOG(R) File 350:Derwent WPIX  
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016195988 \*\*Image available\*\*  
WPI Acc No: 2004-353874/200433

Xml storage system based on enterprise java bean component  
Patent Assignee: JU K S (JUKS-I)  
Inventor: JU K S; KIM Y S; LEE J S  
Number of Countries: 001 Number of Patents: 001  
Patent Family:  
Patent No Kind Date Applicat No Kind Date Week  
KR 2004000895 A 20040107 KR 200235900 A 20020626 200433 B

Priority Applications (No Type Date): KR 200235900 A 20020626

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes  
KR 2004000895 A 1 G06F-017/30

Abstract (Basic): KR 2004000895 A

NOVELTY - An **XML** ( eXtensible Markup Language ) storage system based on the enterprise java bean component is provided to efficiently manage the **XML** document regardless of kind of the **relational database**, and to **convert** searched data into the **XML** document.

DETAILED DESCRIPTION - An application is assembled by a component for **converting** the **XML** DTD into a **relational database** scheme, and a component for **converting** data stored in the **relational database** into the **XML** document. An **XML** storage system uses EJB(Enterprise Java Bean) that is a platform for enterprise solution.

Title Terms: STORAGE; SYSTEM; BASED; BEAN; COMPONENT

Derwent Class: T01

International Patent Class (Main): G06F-017/30

File Segment: EPI

18/5/13 (Item 10 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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015608709 \*\*Image available\*\*

WPI Acc No: 2003-670866/200363

XRPX Acc No: N03-535693

Transforming method for XML document to data object in object oriented framework, involves storing DDO or XDO in content manager data store after constructing at least one DDO or at least one XDO based on DOM tree

Patent Assignee: AN L (ANLL-I); LIN J (LINJ-I); MONICA S (MONI-I); SOETARMAN B (SOET-I); SUMMERS R (SUMM-I); INT BUSINESS MACHINES CORP (IBMC )

Inventor: AN L; LIN J; MONICA S; SOETARMAN B; SUMMERS R

Number of Countries: 001 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20030126556	A1	20030703	US 2001935251	A	20010822	200363 B
US 6785685	B2	20040831	US 2001935251	A	20010822	200457

Priority Applications (No Type Date): US 2001935251 A 20010822

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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US 20030126556	A1	14	G06F-007/00
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US 6785685	B2		G06F-017/30
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Abstract (Basic): US 20030126556 A1

NOVELTY - Parsing of XML document (302) is performed after importing the XML document. A document object model (DOM) tree is then built from the parsed XML document. At least one dynamic data object (DDO) or at least one extended dynamic data object (XDO) is constructed based on the DOM tree. The DDO or XDO is then stored in a content manager data store (212).

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (a) a method for transforming XML document from data objects in object oriented framework;
- (b) a computer readable medium with program instructions for transforming XML document to data objects in object oriented framework;
- (c) a computer readable medium with program instructions for transforming XML document from data objects; and
- (d) a system for transforming XML document to data objects.

USE - For transforming XML (Extensible Markup Language) document to data objects in object-oriented framework.

ADVANTAGE - Enhances the existing framework with a feature to process XML documents utilizing the existing framework facilities. Enables application developers to exploit key advantages of XML representation as well as object orientation.

DESCRIPTION OF DRAWING(S) - The figure is a process flowchart of importing XML document into object oriented framework according to the method for transforming XML document to data objects in object oriented framework.

Content manager data store (212)

XML document (302)

pp: 14 DwgNo 3/4

Title Terms: TRANSFORM ; METHOD; DOCUMENT; DATA; OBJECT; OBJECT; ORIENT; FRAMEWORK; STORAGE; CONTENT ; MANAGE; DATA; STORAGE; AFTER; CONSTRUCTION ; ONE; ONE; BASED; TREE

Derwent Class: T01

International Patent Class (Main): G06F-007/00 ; G06F-017/30  
File Segment: EPI

18/5/15 (Item 12 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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015544528 \*\*Image available\*\*  
WPI Acc No: 2003-606684/200357  
XRPX Acc No: N03-483707

XML document transforming method in computer system, involves transforming received XML document into byte codes for storage as transformed object having streaming interface

Patent Assignee: SYBASE INC (SYBA-N)

Inventor: BHATT V; EACHAMPADI R T; SAMPATH S; SINGH A

Number of Countries: 001 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20030101169	A1	20030529	US 2001300573	P	20010621	200357
			US 200266134	A	20020130	B
US 6799184	B2	20040928	US 2001300573	P	20010621	200464
			US 200266134	A	20020130	

Priority Applications (No Type Date): US 2001300573 P 20010621; US 200266134 A 20020130

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 20030101169	A1	27	G06F-007/00	Provisional application	US 2001300573
US 6799184	B2			G06F-017/30	Provisional application US 2001300573

Abstract (Basic): US 20030101169 A1

NOVELTY - The extracted XML document is transformed into a collection of byte codes and is stored in a database as a transformed object (343) having a streaming interface. The interface provides random access to information within the object. The required information is retrieved from the object in response to a database query.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (1) XML document transforming system; and
- (2) document query system.

USE - For enabling data in XML format to be extracted, transformed and stored in file system, main memory and relational database system in computer system for providing XML query support.

ADVANTAGE - The streaming interface of the transformed object corresponding to the XML document, is flexible and persistent for enabling free movement and efficient access within the transformed object. Thereby enabling the recomposition of the original XML document as required.

DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of the XML query support engine.

transformed object (343)

pp; 27 DwgNo 3/8

Title Terms: DOCUMENT; TRANSFORM ; METHOD; COMPUTER; SYSTEM; TRANSFORM ; RECEIVE; DOCUMENT; BYTE; CODE; STORAGE; TRANSFORM ; OBJECT; STREAM; INTERFACE

Derwent Class: T01

International Patent Class (Main): G06F-007/00 ; G06F-017/30  
File Segment: EPI

18/5/17 (Item 14 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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015449900 \*\*Image available\*\*  
WPI Acc No: 2003-512042/200348  
XRPX Acc No: N03-406334

Document schemes converting method for object - oriented computer system, involves generating class specifications from document schemes and instantiating Java object from generated class specifications

Patent Assignee: INT BUSINESS MACHINES CORP (IBMC )

Inventor: SUNDARESAN N

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 6569207	B1	20030527	US 98166043	A	19981005	200348 B

Priority Applications (No Type Date): US 98166043 A 19981005

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
US 6569207	B1	13	G06F-017/00	

Abstract (Basic): US 6569207 B1

NOVELTY - The **object - oriented class** specifications are generated from document schemes in the computer system. The Java objects are instantiated from the generated **object - oriented class** specifications using data contained in the documents, which complies with document schemes.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (1) apparatus for **converting** document schemes; and
- (2) computer program for **converting** document schemes.

USE - For **converting extensible markup language ( XML )** schemes into component models in **object - oriented** computer system, to generate web **content** for use in e.g. electronic commerce and web-based workflow.

ADVANTAGE - Automatically generates Java **classes** using **XML** schemes and instantiates Java objects using **XML** documents. Thereby, the design data is utilized effectively.

DESCRIPTION OF DRAWING(S) - The figure shows the block diagram illustrating how a Beam Maker instantiates Java objects from **XML** documents using the Java **class** specifications.

pp; 13 DwgNo 3/3

Title Terms: DOCUMENT; SCHEME; **CONVERT** ; METHOD; OBJECT; ORIENT; COMPUTER; SYSTEM; GENERATE; **CLASS** ; SPECIFICATION; DOCUMENT; SCHEME; OBJECT; GENERATE; **CLASS** ; SPECIFICATION

Derwent Class: T01

International Patent Class (Main): G06F-017/00

File Segment: EPI

18/5/18 (Item 15 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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015385813 \*\*Image available\*\*

WPI Acc No: 2003-446756/200342

Related WPI Acc No: 2002-433532; 2002-672896; 2003-634526

XRPX Acc No: N03-356177

Document index creation method in relational database management system, involves defining set of functions in extensible mark - up language extender, to define indices for documents in respective columns of table

Patent Assignee: INT BUSINESS MACHINES CORP (IBMC )

Inventor: CHENG J M; CHOW J; FUH G Y C; XU J

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 6519597	B1	20030211	US 98103501	P	19981008	200342 B
			US 99324499	A	19990602	

Priority Applications (No Type Date): US 98103501 P 19981008; US 99324499 A  
19990602

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes  
US 6519597 B1 26 G06F-017/30 Provisional application US 98103501

Abstract (Basic): US 6519597 B1

NOVELTY - A set of functions is defined in an **extensible mark - up language** (**XML**) extender (100) for processing the **XML** documents stored in columns of a table. Several indices for the documents are defined on respective columns of the table, using the set of functions.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

- (1) document index creating apparatus; and
- (2) article of manufacture comprising recorded medium storing document index creating program.

USE - For creating indices for **extensible mark - up language** documents, in **relational database** management system used for applications such as electronic data interchange for banking **exchange**, music, chemistry, channel definition format.

ADVANTAGE - The document indices fulfilling the requirements of fast query performance, are created without creating new index structures and index managers, hence the need for extra columns or tables for supporting the indices, is prevented.

DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of the database system.

**XML** extender (100)  
pp; 26 DwgNo 1/13

Title Terms: DOCUMENT; INDEX; CREATION; METHOD; RELATED; DATABASE; MANAGEMENT; SYSTEM; DEFINE; SET; FUNCTION; EXTEND; MARK; UP; LANGUAGE; EXTEND; DEFINE; INDEX; DOCUMENT; RESPECTIVE; COLUMN; TABLE

Derwent Class: T01

International Patent Class (Main): G06F-017/30

File Segment: EPI

Set	Items	Description
S1	195240	(DISTRIBUTED OR SHARED) (2W) ( FILE? OR OBJECT? OR COMPUTING OR DATABASE? OR DATA()BASE? OR PROCESSING) OR GROUPWARE OR CO- MMON()SET()APPLICATION? OR PROGRAMMATICALLY()CONNECTED OR NET- WORK()LOAD()BALANCING
S2	243301	(OBJECT? OR RELATIONAL?) () (DATABASE? OR DATA()BASE?) OR OB- JECT()ORIENTED OR OO OR OOPL OR OODB OR RDBM OR RDB OR OOPS - OR OODBS OR RDBMS
S3	22369127	CLASS? OR SUBJECT? OR KEYWORD? OR WORD? OR TERM? OR DESCRI- PTOR? OR SUBJECT()HEADING OR GENRE? OR TOPIC? OR TYPE? OR CON- TENT? OR GROUP? OR RELATION? OR CONNECTION?
S4	12536075	CONVERT? OR TRANSFORM? OR CHANGE? OR MODIF? OR CONVERT? OR EXCHANG? OR TRANSLAT? OR SWITCH? OR SUBSTITUTE? OR TRADE? OR - SWAP?
S5	148777	(EXTENSIBLE() (MARKUP OR MARK()UP) ()LANGUAGE? OR XML OR HYP- ERTEXT OR HYPERMEDIA OR (MARKUP OR MARK()UP) ()LANGUAGE? OR HT- ML OR VCML)
S6	2563088	DIRECTOR? OR INDEX? OR INDICES OR LIST? OR REGISTRY OR REG- ISTRIES OR CHECKLIST?
S7	8543898	GLOBAL OR UNIVERSAL OR ALL OR INCLUSIVE OR ENTIRE?
S8	14328	DIRECTORY() (SERVER? OR PROGRAM? OR PROCESSOR? OR HOST? OR - PROVIDER? (N)RESOURCE? OR NODE? OR APPLICATION?) OR DSA
S9	2408651	ONTOLOGY OR ONTOLOGIES OR CONCEPTUAL?()MODEL? OR CONTROLLE- D()VOCABULARY OR MODEL(5N)KNOWLEDGE OR CONCEPT? OR ATTRIBUTE?
S10	3784813	SERVER? OR STATION? OR SERVER? OR CPU OR CPUS OR PROCESSO- R? OR HOST? OR PROVIDER()RESOURCE? OR REPOSITOR? OR NODE? OR - TERMINAL?
S11	1298	S4 (S) S5 (S) S2
S12	203	S11 (S) S9
S13	1	S12 (S) (S3 (3N) S8)
S14	156	S12 (S) S3
S15	4	S14 (S) S1
S16	0	S14 (S) (S7 (3N) S8)
S17	60	S14 (S) S7
S18	1	S17 (S) S8
S19	54	S14 (S) S10
S20	77	S13 OR S15 OR S17 OR S18 OR S19
S21	56	S20 NOT PY>2001
S22	41	S21 NOT PD>20010525
S23	38	RD (unique items)
File	2:INSPEC	1969-2004/Oct W3 (c) 2004 Institution of Electrical Engineers
File	6:NTIS	1964-2004/Oct W2 (c) 2004 NTIS, Intl Cpyrgh All Rights Res
File	8:Ei Compendex(R)	1970-2004/Oct W3 (c) 2004 Elsevier Eng. Info. Inc.
File	34:SciSearch(R)	Cited Ref Sci 1990-2004/Oct W3 (c) 2004 Inst for Sci Info
File	35:Dissertation Abs Online	1861-2004/Sep (c) 2004 ProQuest Info&Learning
File	65:Inside Conferences	1993-2004/Oct W4 (c) 2004 BLDSC all rts. reserv.
File	92:IHS Intl.Stds.& Specs.	1999/Nov (c) 1999 Information Handling Services
File	94:JICST-EPlus	1985-2004/Sep W4 (c)2004 Japan Science and Tech Corp(JST)
File	95:TEME-Technology & Management	1989-2004/Jun W1 (c) 2004 FIZ TECHNIK
File	99:Wilson Appl. Sci & Tech Abs	1983-2004/Sep (c) 2004 The HW Wilson Co.
File	103:Energy SciTec	1974-2004/Oct B1 (c) 2004 Contains copyrighted material
File	144:Pascal	1973-2004/Oct W3 (c) 2004 INIST/CNRS
File	202:Info. Sci. & Tech. Abs.	1966-2004/Sep 09 (c) 2004 EBSCO Publishing
File	233:Internet & Personal Comp. Abs.	1981-2003/Sep

(c) 2003 EBSCO Pub.  
File 239:Mathsci 1940-2004/Dec  
(c) 2004 American Mathematical Society  
File 275:Gale Group Computer DB(TM) 1983-2004/Oct 26  
(c) 2004 The Gale Group  
File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec  
(c) 1998 Inst for Sci Info  
File 647:CMP Computer Fulltext 1988-2004/Oct W3  
(c) 2004 CMP Media, LLC  
File 674:Computer News Fulltext 1989-2004/Sep W1  
(c) 2004 IDG Communications  
File 696:DIALOG Telecom. Newsletters 1995-2004/Oct 26  
(c) 2004 The Dialog Corp.

23/5/2 (Item 2 from file: 2)  
DIALOG(R)File 2:INSPEC  
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7024365 INSPEC Abstract Number: C2001-10-6140D-013  
**Title: Quilt: an XML query language for heterogeneous data sources**  
Author(s): Chamberlin, D.; Robie, J.; Florescu, D.  
Author Affiliation: IBM Almaden Res. Center, San Jose, CA, USA  
Conference Title: World Wide Web and Databases. Third International Workshop WebDB 2000 (Lecture Notes in Computer Science Vol.1997) p.1-25  
Editor(s): Sucia, D.; Vossen, G.  
Publisher: Springer-Verlag, Berlin, Germany  
Publication Date: 2001 Country of Publication: Germany 274 pp.  
ISBN: 3 540 41826 1 Material Identity Number: XX-2001-01528  
Conference Title: World Wide Web and Databases. Third International Workshop WebDB 2000. Selected Papers  
Conference Date: 18-19 May 2000 Conference Location: Dallas, TX, USA  
Language: English Document Type: Conference Paper (PA)  
Treatment: Practical (P)  
Abstract: The World Wide Web promises to **transform** human society by making virtually **all types** of information instantly available everywhere. Two prerequisites for this promise to be realized are a **universal markup language** and a **universal query language**. The power and flexibility of **XML** make it the leading candidate for a **universal markup language**. **XML** provides a way to label information from diverse data sources including structured and semi-structured documents, relational databases, and object repositories. Several **XML**-based query languages have been proposed, each oriented toward a specific category of information. Quilt is a new proposal that attempts to unify concepts from several of these query languages, resulting in a new language that exploits the full versatility of **XML**. The name Quilt suggests both the way in which features from several languages were assembled to make a new query language, and the way in which Quilt queries can combine information from diverse data sources into a query result with a new structure of its own. (15 Refs)  
Subfile: C  
Descriptors: hypermedia markup languages; information resources; query languages; query processing  
Identifiers: Quilt language; XML query language; heterogeneous data sources; World Wide Web; human society; universal markup language; universal query language; diverse data sources; semi-structured documents; structured documents; relational databases; object repositories; XML-based query languages; query language; Quilt queries; query result  
Class Codes: C6140D (High level languages); C6160 (Database management systems (DBMS)); C6130D (Document processing techniques); C6130M (Multimedia); C7210N (Information networks); C4250 (Database theory)  
Copyright 2001, IEE

23/5/3 (Item 3 from file: 2)  
DIALOG(R)File 2:INSPEC  
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6604528 INSPEC Abstract Number: C2000-07-6160J-007  
**Title: A publishing tool for object-oriented databases**  
Author(s): Li Li; Yang Zheng  
Author Affiliation: Sch. of Computer Sci. & Technol., Beijing Univ. of Posts & Telecommun., China  
Conference Title: Fifth Asia-Pacific Conference on Communications and Fourth Optoelectronics and Communications Conference. APCC/OECC'99. Proceedings. Conference - Vitality to the New Century (IEEE Cat. No.99EX379) Part vol.2 p.1035-8 vol.2  
Editor(s): Lin, J.; Yoshida, J.  
Publisher: Beijing Univ. Posts & Telecommun, Beijing, China  
Publication Date: 1999 Country of Publication: China 2 vol. 1718 pp.  
Material Identity Number: XX-2000-00360  
Conference Title: Proceedings of APCC/OECC'99 - 5th Asia Pacific

complex static structure; alternating well-founded semantics; disjunctive databases; cooperative question answering; fuzzy querying

Class Codes: C6160 (Database management systems (DBMS)); C4250 (Database theory)

Copyright 1998, IEE

23/5/6 (Item 6 from file: 2)

DIALOG(R) File 2:INSPEC

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5621428 INSPEC Abstract Number: C9708-6180-008

Title: An object-oriented model for designing the human-computer interface of hypermedia applications

Author(s): Rossi, G.; Schwabe, D.; Lucena, C.J.P.; Cowan, D.D.

Author Affiliation: Dept. de Inf., Pontificia Univ. Catolica do Rio de Janeiro, Brazil

Conference Title: Hypermedia Design. Proceedings of the International Workshop on Hypermedia Design (IWHD'95) p.123-43

Editor(s): Fraisse, S.; Garzotto, F.; Isakowitz, T.; Nanard, J.; Nanard, M.

Publisher: Springer-Verlag, Berlin, Germany

Publication Date: 1996 Country of Publication: Germany xiii+252 pp.

ISBN: 3 540 19985 3 Material Identity Number: XX95-01430

Conference Title: Proceedings of International Workshop on Hypermedia Design

Conference Sponsor: Univ. Montpellier; District de Montpellier

Conference Date: 1-2 June 1995 Conference Location: Montpellier, France

Language: English Document Type: Conference Paper (PA)

Treatment: Practical (P)

Abstract: The paper presents an object - oriented approach to specifying the user interface of a hypermedia application using the abstract data views (ADVs) concept. The authors discuss ADVs in the context of an object - oriented hypermedia design method (OOHDM) showing how to specify the interface aspects of hypermedia objects including nodes, links and access structures such as indices and guided tours using high-level abstraction and composition mechanisms such as aggregation and generalization/specialization. They state that (ADVs) make it possible to describe, in an abstract, implementation-independent way, a number of relationships including the media objects perceived by the user of the hypermedia application, the mode of interaction with these objects, and the interface transformations that occur while navigating through the hypermedia. In addition, they present ADVcharts and Configuration Diagrams as a design tool to specify both the interface and the static relationships between interface objects and navigational objects in the hypermedia application. In the discussion of ADVcharts, a notation that combines concepts from Statecharts, Objectcharts and Petri nets, they show how to specify the dynamic aspects of a hypermedia application, in particular the interface transformations that occur when certain media objects are "activated" during navigation. Finally they discuss some further issues such as the description of reusable interface objects and patterns of interaction styles, and compare their approach with other formal models used in hypermedia interface design. (24 Refs)

Subfile: C

Descriptors: abstract data types; diagrams; formal specification; hypermedia; multimedia computing; object-oriented methods; object-oriented programming; Petri nets; software reusability; user interfaces

Identifiers: Petri nets; human-computer interface design; Statecharts; abstract data views; object-oriented hypermedia design method; hypermedia objects; nodes; links; access structures; indices; guided tours; high-level abstraction; composition mechanisms; aggregation; generalization; specialization; interface transformations; reusable interface objects; hypermedia navigation; ADVcharts; configuration diagrams; static relationships

Class Codes: C6180 (User interfaces); C6130M (Multimedia); C1160 (Combinatorial mathematics); C6110J (Object-oriented programming); C6110F (

Formal methods); C6120 (File organisation); C6110B (Software engineering techniques)

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23/5/7 (Item 7 from file: 2)

DIALOG(R) File 2:INSPEC

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5566202 INSPEC Abstract Number: C9706-6180-018

Title: Building the HCI of hypermedia applications. The abstract data view approach

Author(s): Rossi, G.; Schwabe, D.; Lucena, C.J.P.; Cowan, D.D.

Author Affiliation: Dept. de Inf., Pontificia Univ. Catolica.R.M. de S. Vicente, Rio de Janeiro, Brazil

Conference Title: Symbiosis of Human and Artifact. Proceedings of the Sixth International Conference on Human-Computer Interactions (HCI International'95) Part vol.a p.307-12 vol.a

Editor(s): Anzai, Y.; Ogawa, K.; Mori, H.

Publisher: Elsevier, Amsterdam, Netherlands

Publication Date: 1995 Country of Publication: Netherlands 2 vol. xxiii+1179+1067 pp.

ISBN: 0 444 81795 6 Material Identity Number: XX97-00680

Conference Title: Symbiosis of Human and Artifact. Future Computing and Design for Human-Computer Interaction

Conference Date: 9-14 July 1995 Conference Location: Tokyo, Japan

Language: English Document Type: Conference Paper (PA)

Treatment: Practical (P)

Abstract: The authors present a novel approach for specifying the interface aspects of a **hypermedia** application with abstract data views. Using abstract data views (ADV) it is possible to describe, in an implementation-independent way, important aspects of the design such as the media objects which the user of the **hypermedia** application will perceive, the way in which the user will interact with these objects, and the interface transformation which will take place while navigating through the **hypermedia**. ADVs are presented in the context of an object-oriented **hypermedia** design method (OOHDM). They briefly discuss which design problems must be solved in order to specify the interface of a **hypermedia** application; they then present configuration diagrams as a design tool to specify the static relationships between interface objects and nodes in a **hypermedia** application. ADVcharts, a notation combining concepts from Statecharts, Objectcharts and Petri nets are later presented as a formalism to specify the dynamic aspects of a **hypermedia** application. They finally discuss some further issues such as reuse in the large of interface models. (12 Refs)

Subfile: C

Descriptors: abstract data types; diagrams; formal specification; hypermedia; multimedia computing; object-oriented methods; object-oriented programming; Petri nets; software reusability; user interfaces

Identifiers: abstract data views; hypermedia applications; human-computer interface; media objects; user-object interaction; interface transformation; hypermedia navigation; object-oriented hypermedia design method; interface specification; configuration diagrams; design tool; static relationships; ADVcharts; Statecharts; Objectcharts; Petri nets; dynamic aspects; interface model reuse

Class Codes: C6180 (User interfaces); C6130M (Multimedia); C1160 (Combinatorial mathematics); C6110F (Formal methods); C6110J (Object-oriented programming); C6120 (File organisation); C6110B (Software engineering techniques)

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23/5/8 (Item 1 from file: 8)

DIALOG(R) File 8:Ei Compendex(R)

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05961036 E.I. No: EIP01526773826

Title: A real-time plant database based on XML and its application to a computer based procedure

Author: Jung, Y.

Corporate Source: Korea Electric Power Research Inst., Taejon, 305-380, South Korea

Conference Title: Technology Update (ISA) 2001

Conference Location: Houston, TX, United States Conference Date: 20010910-20010913

E.I. Conference No.: 58803

Source: ISA TECH/EXPO Technology Update Conference Proceedings v 413 I 2001. p 195-200

Publication Year: 2001

CODEN: ITUPFX ISSN: 1054-0032

Language: English

Document Type: CA; (Conference Article) Treatment: A; (Applications)

Journal Announcement: 0112W5

Abstract: Plant information is decomposed hierarchically and expressed in XML. Plant, system, and component constitute the hierarchy. Since this semantic model is similar to real plant configuration, it is easy to build XML database. XML is powerful and flexible to represent various types of devices. DTD of XML lists all allowable devices and their available attributes. Unlike RDBMS, a single XML file is enough to represent whole plant. Besides, a node of the hierarchy can be quickly retrieved with help of modified XML query. Dynamic device symbols are developed to present the nodes of XML. The device symbols are stored in the server side and delivered with retrieved nodes. XML based database is applied to a computer based procedure that requires context sensitive plant information. 5 Refs.

Descriptors: \*XML; Database systems; Data structures; Java programming language; Computer applications; User interfaces; Management information systems; Information retrieval systems

Identifiers: Real time data base; Computer based procedure; Device symbols; Subscription

Classification Codes:

723.1.1 (Computer Programming Languages)

723.1 (Computer Programming); 723.3 (Database Systems); 723.5 (Computer Applications); 722.2 (Computer Peripheral Equipment); 723.2 (Data Processing); 903.3 (Information Retrieval & Use)

723 (Computer Software, Data Handling & Applications); 722 (Computer Hardware); 903 (Information Science)

72 (COMPUTERS & DATA PROCESSING); 90 (ENGINEERING, GENERAL)

23/5/10 (Item 3 from file: 8)

DIALOG(R)File 8:EI Compendex(R)

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04861948 E.I. No: EIP97103899709

Title: Formalization of legislative documents based on a functional model

Author: Tiscornia, Daniela; Turchi, Fabrizio

Corporate Source: Istituto per la Documentazione Giuridica del CNR, Florence, Italy

Conference Title: Proceedings of the 1997 6th International Conference on Artificial Intelligence and Law

Conference Location: Melbourne, Aust Conference Date: 19970630-19970703

Sponsor: ACM

E.I. Conference No.: 47164

Source: Proceedings of the International Conference on Artificial Intelligence and Law 1997. ACM, New York, NY, USA. p 63-71

Publication Year: 1997

CODEN: 850AAX

Language: English

Document Type: CA; (Conference Article) Treatment: G; (General Review)

Journal Announcement: 9712W4

Abstract: The Lexsearch system, a database specialized in the management of statutes is described in this article. It is part of a broader project aimed at building a computational support system for drafting legislative

00500263 E91116164021

Integrating hypertext system, expert system and legal document database  
(Integration eines Hypertextsystems, eines Expertensystems und juristischen Datenbank)

Witulski, K

Univ. of Dortmund, D

Dortmunder Expertensystemstage '91, Dortmund, D, 19911991

Document type: Conference paper Language: English

Record type: Abstract

ISBN: 3-88585-998-X

**ABSTRACT:**

The paradox situation is that information never was produced at such big a scale. On the other hand, it obviously has never been so difficult to lay hands on the part of information or knowledge specific to the solution of one's personal problem, just because there is such a variety and complexity of texts and even information in other media available. Currently two basic approaches to this problem of selection find the interest of a scientific audience: associative search and traditional methods of selection by database technology. The system DOFLEX (DOrtmund Flexible Legal Expert System Environment) has been developed as an expert system shell for processing prescriptions with special emphasis to support frequent changes of knowledge base resulting from frequent changes of the underlying legal sources. Compared to hypertext systems, it turned out, that this shell also incorporates their major features. For example, the system supports a stepwise walk over the structure of rules and maintains a path of context. Backwalk on this path is possible as well as walking to more general or more special concepts. With exception of leaves the authors can associate to every concept in the net a piece of text. These pieces are stored by relational database technology. The main functionality of the system lies in the support of authoring. So one can manage several independent structures within the same database as well as insert, delete or edit any node or rule at every location in the net of concepts. Even insert and delete of whole further bases is supported. This tool implemented in PROLOG is an ideal basis for research aiming the integration of expert systems, hypertext and relational database technology. It seems to be very straightforward to use this shell as a frontend to databases like JURIS, consisting of some 10000 documents.

DESCRIPTORS: EXPERT SYSTEMS; RELATIONAL DATABASES; DOCUMENTATION-- LITERATURE; INFORMATION RETRIEVAL SYSTEMS; JUDICIAL SUBJECTS; SEARCH ALGORITHM; SEMANTICS

IDENTIFIERS: DOFLEX--(JURA EXPERTENSYSTEM); JURIS--(JURISTISCHE ONLINE DATENBANK); Recherche; Expertensystem; Hypertext; Datenbank

23/5/15 (Item 1 from file: 233)

DIALOG(R)File 233:Internet & Personal Comp. Abs.

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00616233 00WQ12-005

Plug in to SQL Server 2K

Floyd, Michael

Web Techniques , December 1, 2000 , v5 n12 p73-77, 4 Page(s)

ISSN: 1086-556X

Company Name: Microsoft

Product Name: Microsoft SQL Server 2000

Languages: English

Document Type: Articles, News & Columns

Geographic Location: United States

Presents a primer on SQL Server 2000, a relational database management system (RDBMS) from Microsoft Corp. Reports that Microsoft has added Extensible Markup Language (XML) capability to SQL Server 2000, which means mapping tables and columns to XML elements and attributes , supporting data validation and transformations , and letting

users query the database directly through a Hypertext Transfer Protocol (HTTP) connection and return the results in XML . Says that to take advantage of this ability to query the database through a Web connection , developers mu by making a new virtual directory within the Web server and associating that directory with the physical database. Concludes that the new features in SQL Server 2000 look promising as a first cut into XML . Includes five program listings, two sidebars, and a table. (MEM)

Descriptors: SQL; Data Base Management; Database; XML; Hypertext; Directories; Application Development

Identifiers: Microsoft SQL Server 2000; Microsoft

23/5/16 (Item 2 from file: 233)  
DIALOG(R)File 233:Internet & Personal Comp. Abs.  
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00602141 00EA05-003

The evolution of XML schemas -- There's a common misconception that a schema is the magic piece telling us what the elements and attributes of an XML document...

Tauber, James

e-Business Advisor , May 1, 2000 , v18 n5 p26-28, 2 Page(s)

ISSN: 1098-8912

Languages: English

Document Type: Articles, News & Columns

Geographic Location: United States

Discusses the schema, which gives a set of element and attribute names along with constraints on where they can be used in a document and what they can contain. Says the meaning of an element is determined by the code that processes the XML documents following a particular schema. Notes that some schema languages introduce object - oriented notions of extension of types . Suggests that one way to improve interoperability is to move away from developing monolithic schemas that attempt to cover all possibilities, and to focus on more modular schemas that can be plugged together to describe a particular class of documents. Attention is given to the interoperability technology of transformation , whereby if users encounter an XML document following a schema they do not understand, they can transform it to one that they do understand using, perhaps, Extensible Stylesheet Language Transformations . Includes one sidebar.

(jon)

Descriptors: XML; Interoperability; Documentation; Transforms; Languages

23/5/17 (Item 3 from file: 233)  
DIALOG(R)File 233:Internet & Personal Comp. Abs.  
(c) 2003 EBSCO Pub. All rts. reserv.

00508135 98IW09-315

ColdFusion extends a friendly hand to Web application developers

Tweeney, Dylan

InfoWorld , September 28, 1998 , v20 n39 p48, 1 Page(s)

ISSN: 0199-6649

Languages: English

Document Type: Articles, News & Columns

Geographic Location: United States

NET PROPHET column discusses how Perl, the scripting language used in CGI programs, provides the glue that holds Internet clients, servers , transports, and protocols together. Asserts that as good as Perl is, ColdFusion from Allaire is even better. Reports that ColdFusion users call it more cost-effective, easy to learn and read, and efficient. Cautions that its ability to integrate with HTML is useful enough to outweigh its lack of high-end object - oriented features. Introduces the next generation concept , WDDX (Web Distributed Data Exchange ) which is a DTD (Data Type Definition) based XML (Extensible Markup Language ) vocabulary. Concludes that since the Web of both tomorrow and today will lo like a mass of numerous products operating on many platforms and trying to

communicate with each other, tools like ColdFusion and WDDX will help lessen the chaos. Includes one photo. (CAT)

Descriptors: Scripting; Server; Internet; Programming Language; World Wide Web; Interoperability  
?t s23/5,k/19-22,24-29,31-35,37

23/5,K/19 (Item 2 from file: 275)  
DIALOG(R)File 275:Gale Group Computer DB(TM)  
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02339829 SUPPLIER NUMBER: 56080892 (USE FORMAT 7 OR 9 FOR FULL TEXT)  
**XAS: E - APPLICATION SERVER ASCENDANT. (XML application server) (Technology Information)**  
DAVYDOV, MARK  
Intelligent Enterprise, 2, 14, 32  
Oct 5, 1999  
LANGUAGE: English RECORD TYPE: Fulltext; Abstract  
WORD COUNT: 3607 LINE COUNT: 00314

**ABSTRACT:** The multitier application structure is the predominant architecture for client-server systems and is now finding use in Web applications. Multitier systems employ special application-server middleware, including object request brokers, message-oriented middleware and transaction monitors. The architecture consolidates business logic and database access on a dedicated, middle-tier server to provide scalability and cost-effective adaptability. Middleware has proven effective for large client/server systems, but is not sufficient for large-scale electronic commerce systems, such as Web hosting, financial services, healthcare systems, consumer marketing and supply-chain systems. The XML application server (XAS) is a new class of middleware that is expected to address the shortcomings of Web-based information structures.

**DESCRIPTORS:** Network/file server technology; Technology overview; Network architecture

**FILE SEGMENT:** CD File 275

... database (ODBMS). Several traditional ODBMS vendors, such as Object Design Inc. and Poet Software Inc., have announced XML-based object data servers that ostensibly let applications store and transform information as XML in a middle-tier cache. Supporters of this approach view the XAS primarily as architecture for pulling information from various databases into a centralized XML cache store. On the other side of the debate, RDBMS vendors are rushing to enable SQL searching of XML content by storing complete XML documents as relational tables. For example, IBM's DB2 Universal Database Version 6.1 provides a range of functions for so-called Web information retrieval applications -- Web applications in which an entire XML document is stored in DB2, and SQL performs searches on desired XML elements or attributes. IBM has enhanced DB2 Universal Database's text extender for populating DB2 tables with XML data types and searching of XML content in DB2, and is planning to offer a new DB2 XML extender to further integrate XML support into DB2, including the support for XML document type definitions (DTDs).

\* Second, many industry analysts are not putting XAS in the spotlight it deserves; for the...

23/5,K/20 (Item 3 from file: 275)  
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02010284 SUPPLIER NUMBER: 18842574 (USE FORMAT 7 OR 9 FOR FULL TEXT)  
**NetScheme InterMart Toolkit. (NetScheme Solutions' toolkit for making Web pages that access databases) (Software Review) (Evaluation)**  
Telford, John M.  
DBMS, v9, n12, p35(3)  
Nov, 1996  
DOCUMENT TYPE: Evaluation ISSN: 1041-5173 LANGUAGE: English  
RECORD TYPE: Fulltext; Abstract

WORD COUNT: 1028 LINE COUNT: 00085

ABSTRACT: NetScheme Solutions' NetScheme InterMart ToolKit helps developers make databases accessible on the Web. The application uses object-oriented technology to map databases and produce template Web pages to access them. Web content developers can use NetScheme InterMart ToolKit to create rich, dynamic Web sites without writing SQL code. NetScheme requires a Windows NT Web server, supports Microsoft SQL Server and Sybase SQL Anywhere 5.0.2, and uses Windows NT server Open Database Connectivity drivers to connect to any database. The toolkit includes a point and click Wizard to facilitate usage. The Modeler reads database tables as classes and columns as attributes, producing a model of the database that can be changed without altering the database. The Navigation Server generates HTML pages and keeps an open connection to the database.

SPECIAL FEATURES: illustration; table; other

COMPANY NAMES: NetScheme Solutions Inc.--Products

DESCRIPTORS: Software Single Product Review; Database Middleware

SIC CODES: 7372 Prepackaged software

TRADE NAMES: InterMart (Database middleware)--Evaluation

FILE SEGMENT: CD File 275

...ABSTRACT: application uses object-oriented technology to map databases and produce template Web pages to access them. Web content developers can use NetScheme InterMart ToolKit to create rich, dynamic Web sites without writing SQL code. NetScheme requires a Windows NT Web server, supports Microsoft SQL Server and Sybase SQL Anywhere 5.0.2, and uses Windows NT server Open Database Connectivity drivers to connect to any database. The toolkit includes a point and click Wizard to facilitate usage. The Modeler reads database tables as classes and columns as attributes, producing a model of the database that can be changed without altering the database. The Navigation Server generates HTML pages and keeps an open connection to the database.

23/5,K/21 (Item 4 from file: 275)

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01856247 SUPPLIER NUMBER: 17489886

Dreaming of the future. (digital technology requires a new way of thinking) (Commentary) (Technology Information) (Column)

Engelbart, Douglas

Byte, v20, n9, p330(1)

Sep, 1995

DOCUMENT TYPE: Column

ISSN: 0360-5280

LANGUAGE: English

RECORD TYPE: Abstract

ABSTRACT: The rapid progression of computing technology requires the development of new ways of thinking before people can take full advantage of the new technologies. The open hyperdocument system requires people to change their outdated concepts of documents and think in terms of flexible jumping and viewing options. The objects of a document should be treated as representations of kernel concepts and explicit structuring options are used to provide an enhanced mapping of the source concept structures. The World Wide Web's (WWW) Hypertext Markup Language (HTML) is becoming a highly structured, object-oriented architecture that includes editor-browser tools. People need to adopt this approach to performing all of their work. All plans, lists, E-mail and other documents can be linked as hyperdocument pieces. The concept of Concurrent Development, Integration and Application of Knowledge (CoDIAK) will provide organizations with a significant competitive edge by providing their employees with the highest collective IQ.

DESCRIPTORS: Technology Information; Technology Overview; Technology Development

FILE SEGMENT: CD File 275

...ABSTRACT: before people can take full advantage of the new technologies. The open hyperdocument system requires people to change their outdated concepts of documents and think in terms of flexible jumping and viewing options. The objects of a document should be treated as representations of kernel concepts and explicit structuring options are used to provide an enhanced mapping of the source concept structures. The World Wide Web's (WWW) Hypertext Markup Language (HTML) is becoming a highly structured, object-oriented architecture that includes editor-browser tools. People need to adopt this approach to performing all of their work. All plans, lists, E-mail and other documents can be linked as hyperdocument pieces. The concept of Concurrent Development, Integration and Application of Knowledge (CoDIAK) will provide organizations with a significant competitive edge...

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01684000 SUPPLIER NUMBER: 15071506 (USE FORMAT 7 OR 9 FOR FULL TEXT)

Cooperative hypermedia systems: a Dexter-based architecture. (Special  
Section: Hypermedia) (Technical)

Gronbaek, Kaj; Hem, Jens A.; Madsen, Ole L.; Sloth, Lennert  
Communications of the ACM, v37, n2, p64(11)

Feb, 1994

DOCUMENT TYPE: Technical ISSN: 0001-0782 LANGUAGE: ENGLISH

RECORD TYPE: FULLTEXT; ABSTRACT

WORD COUNT: 7506 LINE COUNT: 00609

ABSTRACT: A hypermedia system for cooperative engineering design is described that is based on the Dexter Hypertext Reference Model, which separates storage and run-time aspects of a system and distinguishes the hypermedia system's responsibilities from those of the other software. Three layers are thus created: the storage layer, the run-time layer, and the within-component layer. The internal structure of the first two layers are defined by the Dexter model, but the structure of the third is open. The Dexter model leaves many design decisions open, among which are support for sharing of hypertexts and components among users, the relationship of the Dexter layers to a multiuser distributed hypermedia-architecture, and placement of the responsibility for locking. The hypermedia system developed here complies with the Dexter framework and architecture while extending the model for cooperative work.

SPECIAL FEATURES: illustration; chart; program

DESCRIPTORS: Distributed Systems; Research and Development; Distributed Processing; Software Design; New Technique; Interoperability; Hypermedia; Computer-aided engineering; Hypertext

SIC CODES: 7372 Prepackaged software

FILE SEGMENT: CD File 275

... hypermedia structures.

Run-time processes (see Figure 1) store and retrieve hypertexts as persistent roots via the OODB server. Hypertexts, components and anchors in DHM possess attributes with information about, for example, who was the creator and who was the last modifier. There are also attributes indicating whether the storage objects are public, belong to a group, or belong to a specific user. These attributes allow a session for a hypertext to selectively present only the objects the current user would like to use or has the rights to use. The basic-event notification mechanism in the OODB, described earlier, makes it possible to keep track of higher-level events on shared hypertexts such as...article. The architecture includes a generic framework for developing Dexter-compliant hypermedia systems. The framework consists of class hierarchies representing an extended object-oriented implementation of the generic concepts proposed by the Dexter model. The client and server processes

historically. It predicts site saturation points, and pinpoints when additional resource investments are...

... small-office environments, use of fixed IP addresses with cable modems and DSL service for high-speed **connections** brings the associated danger of scanning. Hackers scan for new IP addresses on a daily and nightly...

...If these services are left bound, individuals and small-office operators can suddenly find themselves sharing the **contents** of their hard disk or network with the rest of the Internet. Personal firewalls protect ports from...

... first is Trojan horses. Trojans, installed by e-mail attachments, often attempt to communicate with their distant **host** - as in zombie-based distributed denial-of-service attacks. Some personal firewalls alerts desktop users that a certain program is attempting to make an external **connection** over a certain port to a distant IP address. A security-aware corporate user can permit or deny the **connection** based on knowledge of what that **connection** is attempting to do. (If it says Back Orifice anywhere, that's a big clue!) Otherwise, users...

23/5, K/32 (Item 4 from file: 674)  
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075422

**CIM creeps even closer**

The Common Information Model is already paying dividends, but more vendors need to get on board.

Byline: ELISABETH HORWITT

Journal: Network World Page Number: 1

Publication Date: June 21, 1999

Word Count: 2024 Line Count: 195

Text:

... CIM's strengths as an integration enabler for enterprisemanagement. FrontLine Manager, now known as Frontline FastStart, provides all the proactive, integrated and graphical user interface-based management capabilities offered by enterprise frameworks such as Tivoli...

... said to automatically discover, locate, diagnose and correct problems such as electronic commerce transaction bottlenecks. What makes all this possible is the Common Information Model (CIM), a key part of the Desktop Management Task Force...

... schemas for describing and sharing enterprisewide management information. In addition to CIM, WBEM includes these elements:  
1. **XML**, a standardized structure for presenting and structuring management information in Web page format. **XML** will let management applications dynamically share CIM data.  
2. **HTTP** for common transport of management information.  
3. **Lightweight Directory Access Protocol**, which defines a directory infrastructure for storing and accessing management information.  
DMTF working **groups** are in the process of evolving a set of CIM schemas that describe the gamut of managed elements: **servers** and desktops, including operating systems, components, peripherals and applications; all layers of the network, from Ethernet **switches** through IP and **HTTP connections**; and users. Schema fields describe the **attributes** that apply to these objects, from the **type** of printer or storage medium used, to RAM and **CPU** capacity, to whether a **switch** supports the Border Gateway Protocol. CIM will also define management functions and disciplines, such as application performance measurement and policy-based networking. One of CIM's major strengths is a hierarchical, **object-oriented** architecture that makes it comparatively straightforward to track and depict the often-complex interdependencies and associations among different managed objects. Such interdependencies may include those between logical network **connections** and underlying physical devices, or those of an e-commerce transaction and the Web and database

**servers** on which it depends. CIM schemas are also far more comprehensive than SNMP or the Desktop Management...

... specific extensions that are eventually included in essentially proprietary SNMP Management Information Bases. "I think CIM and **XML** are the best shot we've had in the management realm for a long time," McConnell says...

... see CIM as their best crack at that elusive, long-pursued animal - the vendor-independent management information **repository**. Right now, like most companies, UPS maintains multiple, vendor-specific and often redundant sets of management information, each generated by a different management application or tool. Ensuring that **changes**, such as user updates or device reconfigurations, get propagated in **all** the right places is an administrative nightmare, says Peter Gunn, network performance manager at the package handler in Mahwah, N.J. UPS' management framework, Tivoli NetView, provides a common **repository** that applications can share - provided they support the framework's APIs. Gunn hopes that a CIM-based **repository** will give him a broader choice of management applications without sacrificing information-sharing. Also generating user interest...

... crucial to its DEN strategy. "In a directory-enabled world, we don't have to know what **type** of system it is or the physical location of it to get information," says Glenn Tindall, internal enterprise data networking **group** director at the Washington, D.C., carrier. CIM and WBEM's vendor-independent infrastructure will help MCI...

... with few vendors supporting CIM, Manage.Com also had to provide its own CIM agents - software to **convert** existing SNMP or Desktop Management Interface (DMI) information to CIM - on key e-commerce **servers**. While a truly impressive roster of vendors has worked on the standard and promised to support it...

... which tracks and reports software assets on Windows and NT systems, and with Microsoft's Systems Management **Server** (SMS) 2.0. More important, Microsoft is so far the only systems vendor to ship a CIM... Tivoli NetView and NetIQ's AppManager Suite, can use WMI as a single point of contact for **all** the information they need about a desktop. Early users report several benefits to being able to manage...

... be complete enough for vendors to implement. There will also be CIM extensions that address more specific **types** of systems, such as mass storage and Unix. While network and systems management schema rapidly fall into...

... of helpful tools, says Bob Kruger, vice president of Windows NT Solutions at BMC in Houston. After **all**, even Microsoft hasn't yet announced CIM support for its applications. In other recent news, the DMTF last week released the first round of **XML** specifications. And Sun announced Solaris WBEM Services, a Java-based CIMOM that runs on Solaris systems. The...

... year; Sun also plans to license it to other vendors. In the meantime, Sun's Easy-Access **Server** Solaris bundle, slated for release in August, is expected to fully support CIM. A Unix-based CIMOM...

... t see anyone implementing WBEM to replace SNMP," says Jim Haselmaier, marketing manager for HP OpenView Network **Node** Manager. SNMP Research plans to have its forthcoming application and systems management applications support CIM as a...

... says. Another cloud on the horizon is the question of when, or even if, vendors will adopt **XML** as the standard way to access CIM information. **XML** is key to CIM because it ensures that different management systems and applications can **exchange** and use each other's CIM-based information, McConnell says. At this point, however, few management vendors have announced **XML** support. Companies such as BMC and Microsoft have indicated that **XML** will be just one of several methods they'll use to present and

exchange CIM data (Microsoft's Component Object Model being another). Vendors such as Compaq are waiting for XML specifications to stabilize, which Reynolds predicts will happen in the third or fourth quarter. What's neededThe group hosted sessions at this spring's NetWorld+Interop '99 trade show and founded a CIM Customer Forum, whose members will hopefully spread the CIM gospel. For the...

... a Network World Town Meeting. "None of the vendors I deal with have approached me on the subject," he says. It's not surprising, then, that a current CIM user, such as Internet Banking's...

23/5,K/33 (Item 5 from file: 674)  
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075324

**A high-level language worthy of your tool kit**  
Byline: Mark Gibbs  
Journal: Network World Page Number: 44  
Publication Date: June 14, 1999  
Word Count: 621 Line Count: 56

Text:

... so-called VHLL's ;-) -Guido van Rossum from the Python Web site ([www.python.org/doc/](http://www.python.org/doc/) Summary. html) This week, Gearhead looks at a way-cool programming language called Python. "Not another language!" Gearhead hears...

... 1990) was Monty Python's Flying Circus. Python is a very high-level language (VHLL) that supports object-oriented... programming. It is similar to Perl and Tcl (which we will cover in a future "Gearhead" column ...

... source code to the language is freely available under the GNU license, which means that you can modify it as you see fit. The language has some important features, least of which is the indenting...  
... go). Python can be used as a scripting language for browsers (with a plug-in) and Web server applications, including Microsoft's Active Server Page (ASP) technology (see "Gearhead," NW, April 12, page 36). And as proof, it can be used...

... world applications: The scoreboard system for the Melbourne (Australia) Cricket Ground and Zope, a terrific Web application server, are both written in Python. All Python programs are called modules. Modules can be imported (Pythonese for "used") by other modules and can be reloaded dynamically so changes in source code can be made and effected during execution. Python comes with a slew of modules...

... well as file and network input/output support. Also included are open source programs that implement Web servers, editors, databases and other useful functions. Strictly speaking, Python is a compiled language in the same manner...

...that is, in turn, interpreted by the Python run-time system. While Python and Java share some attributes, Java is far more rigorous in its security model and far richer in terms of interface and function libraries. On the other hand, a Python program will usually execute faster than...

23/5,K/34 (Item 6 from file: 674)  
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068810

**Database-driven Web development**  
Elemental Software's Drumbeat 2.0 puts a simple face on a difficult task.

As far as the Corporation is concerned all this leaves them in a unique position, without any obvious competition. "We don't really have any..."

...own admission, nothing The Fantastic Corporation do is staggeringly original. The technology they use to create the **content** on their sites include standard web creation software, such as MS FrontPage, and is **HTML** and Java-based (which is also conveniently in-keeping with the Digital Video Broadcast standards - see IM...)

...and commonplace, and companies such as EUnet, NewMedia's Cyberstream and the MultiMedia Network in Finland are all developing products aimed at much the same market. The Fantastic Corporation however, is the first to market a scalable, **object - oriented** software for broadband delivery which users can customize and adapt, and that is a significant selling point...

...alone, and TFC's system with high speed multimedia offers, what is probably the ultimate network.

While all portal sites will no doubt eventually speed up and adjust to the higher delivery speeds brought by...

...a valid one for now, but if their strategy succeeds and they successfully snaffle up the best **content** before anyone else, they could remain unique for some time yet.  
An interesting aspect of the deals...

23/5,K/37 (Item 3 from file: 696)  
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00610782

XML/EDI VS. OBJECT ORIENTED-EDI TWO FUTURE EDI PROPOSALS VIE FOR ATTENTION AMONG ASC X12 MEMBERS  
EDI NEWS  
June 22, 1998 VOL: 12 ISSUE: 13 DOCUMENT TYPE: NEWSLETTER  
PUBLISHER: PHILLIPS BUSINESS INFORMATION  
LANGUAGE: ENGLISH WORD COUNT: 1238 RECORD TYPE: FULLTEXT

By most accounts the latest meeting of the American National Standards Institute's Accredited Standards Committee X12 was one of the quietest on record. But just beneath the surface a . . . . .

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COMPANY NAME(S): American National Standards Institute ; ASC X12 ; Concepts In A Technology ; Denver University ; DISA ; Electronic Commerce ; EDI ; Gartner Group ; Graphic Communications Association ; Methodologies Working Group ; POET Software ; RosettaNet Consortium ; Standards Association ; Standards Institute ; Strategic Implementation Task Group ; Techniques ; United Nation 's Center for Facilitation of Practices and Procedures ; World Wide Web Consortium ; XML/EDI Group

TEXT:

...hyper-growth.

While the current user base is estimated to be 150,000, Stamford, Conn.-based Gartner **Group** [GART] calculates the potential to be 6 million.

The next generation of EDI must be broadly interoperable...

...Simply put, EDI must be convertible into off-the-shelf software. ASC X12's Strategic Implementation Task **Group** - which met during ASC X12's June 1 through June 5 trimester meeting in Columbus, Ohio - is promoting a combination of **object - oriented** software technology models called "business objects," a **type** of blue print of business

practices that can be followed to create EDI software.

The task **group** is using Framingham, Mass.-based Object Modeling

**Group**'s Unified Modeling Language (UML) to model common business practices behind the **types** of transactions EDI seeks to automate.

Meanwhile, in X12C - the Communications and Controls

Subcommittee - a permanent task **group** will map X12 transaction sets to **XML /EDI**, a new marriage between the **Extensible Markup Language** and EDI.

#### **XML /EDI Wants To Rock The EC World**

Less than a year ago, only a small circle of World Wide Web insiders knew of **XML**. **XML** is a subset of Standard Graphical **Markup Language**. **XML** was adopted in October 1997 by the Cambridge, Mass.-based World Wide Web Consortium to head off a major fragmentation of the Web into non-interoperable, proprietary fiefdoms.

Now **XML**, and its E-business cousin **XML /EDI** (EDI NEWS, Aug. 4, 1997), are taking root in the electronic commerce landscape. In fact at...

...industry associations - the Data Interchange Standards Association (DISA) and the Graphic Communications Association - announced support for the **XML /EDI** effort. DISA is the secretariat for ASC X12. The Graphic Communications Association is a technical management organization in the publishing and printing industries that has supported **XML** since its creation in 1997.

The Graphic Communications Association's research institute is acting as the **XML /EDI Group**'s secretariat. The **group** is coordinating work among different organizations interested in the new technology.

#### **XML /EDI Gains Supporters**

Supporters of the **XML /EDI Group** are sprouting up everywhere.

Organizations that are working on **XML /EDI** in unison with the **XML /EDI Group** include the RosettaNet Consortium, W3C, CommerceNet and UN/EDIFACT.

In a related effort, Denver University's Electronic Commerce Department is collaborating with the **XML /EDI Group** to develop a pilot **XML repository** system. The pilot is using San Mateo, Calif.-based POET Software's new POET CMS **object oriented** data store, which is **XML**

document compliant and operates over the Web. Such **repositories** are a crucial component of the overall **XML /EDI**

The EDI standards **group** for health care, HL7, has decided to adopt **XML /EDI**, and the **XML /EDI Group** is soliciting other industry and government enterprises and associations.

"My perspective is that **XML /EDI** being formally adopted by X12, . . . that's going to definitely be the trend here in the states," says Chuck Shih, technology analyst for Stamford, Conn.-based Gartner

**Group**. "Not just DISA and X12 are adopting it, but a whole slew of industry-specific folks are too. RosettaNet in the IT industry will try to lay out the **XML** grammars and semantic **repositories** or common business processes within the IT industry."

"If you listen to the **XML /EDI Group**, the ultimate vision is not just to put up the semantic **repositories**, but also to put up common ways of handling the messages; you know, Java applets, those kinds of things that will actually work on the data," he continues. "So that becomes like an **OO** - (**object oriented**) model."

Shih thinks such a model would compete with the **object-oriented** - EDI model (EDI NEWS, May 12, 1997) proposed by Klaus-Dieter Naujok, chairman of the Techniques and Methodologies Working **Group** of the United Nation's Center for Facilitation of Practices and Procedures for Administration, Commerce and Transport (CEFACT). CEFACT maintains and develops UN/EDIFACT, the international EDI standard. The **oo**-EDI strategy is similar to **XML /EDI** in that both seek ways to interface with today's preferred method of software development, **distributed**,

object-oriented programming. But while XML/EDI combines programming approaches to several parts of the EDI puzzle, including ways to transport, format and manipulate the data contained in the EDI message, oo-EDI sticks with standardizing the business practices that must be modeled and turned into EDI applications. That...

...X12 a clearly defined role to play because the business processes are what it knows best. The oo-EDI approach probably will be adopted by CEFACt, while XML/EDI will become popular in the United States, Shih says. In practice, data interpretation will remain a problem with XML/EDI, just as it is with standard EDI, says Doug Anderson, chairman of X12I, the transportation subcommittee...

...different meanings in the same bits of information, Anderson contends. Overcoming that problem is the reason the concept of semantic repositories was developed to begin with, but Anderson says the problem will not be solved by them. Even with the precise definitions provided by the repositories, there still will be interpretation problems, he says.

#### ASC X12 Members Learn UML

While X12C focuses on the possibility that XML/EDI might help reduce the complexity of EDI, the Strategic Implementation Task Group is promoting the Unified Modeling Language (UML) as a way to create business objects that then can be turned into software using oo-EDI. ASC X12 adopted the use of object modeling a year ago, and in April an interim meeting of the task group decided to adopt UML as its preferred modeling method.

As a result, more than 50 ASC X12...

...Kendra Martin, ASC X12 chairwoman, says ASC X12 members may be able to model without professionals. After all, that's what the classes are for. (Doug Anderson, ASC X12, 614/793-7000; Harry Featherstone, ASC 12, 703/917-7210; Kendra Martin, ASC, 202/682-8517; Chuck Shih, Gartner Group, 203/316-1111; David Webber, the XML/EDI Group, 301/341-1749.)

#### XML/EDI: Concepts In A Technology Concert

The XML/EDI model capitalizes on many technologies. XML/EDI:

- \* uses the XML protocol as its data interchange modeling layer;
- \* uses the XML Style Language (XSL) protocol as its presentation layer;
- \* can be integrated with traditional methods of EDI;
- \* can be used with all standard Internet transport mechanisms such as Internet protocol routing, hypertext transfer protocol, file transfer protocol and simple mail transfer protocol;
- \* allows for document-centric views and processing...

...data to be shared between programs; and

- \* uses agent technologies for data manipulation, parsing, mapping, searching.

Source: XML/EDI Group